Title: EXECUTION OF MODIFIED BYTE CODE FOR DEBUGGING, TESTING AND/OR MONITORING OF OBJECT ORIENTED SOFTWARE

REMARKS

This paper responds to the Office Action mailed on March 13, 2009. Although Applicant believes that the original pending claims define over the art of record, Applicant has amended claims 1, 18, and 30 in order to advance prosecution. Further, claim 30 was amended merely to correct a typographical error. Claims 12, 29, and 35-43 remain canceled and no claims are added. Consequently, claims 1-11, 13-28, and 30-34 remain pending in this application.

Interview Summary

The Examiner conducted an Interview with Mr. Robert O'Rourke on March 5, 2009.

Since the current matter was recently transferred from another firm, the undersigned attorney is unable to verify the contents of the Interview. However, according to the Interview Summary supplied by the Examiner, on March 3, 2009, the Examiner called and left a message for Mr.

O'Rourke regarding Examiner's amendments to put the case in condition of allowance. On March 5, 2009, O'Rourke informed the Examiner that the client is currently in Germany and could not be reached at the moment. Accordingly, the Examiner examined the case as presented. Claims 1-11, 13-28, and 30-34 are currently pending and have been examined. After further consideration, the Examiner notes that claims 1-11 and 13-17 are still unpatentable over Boykin and APA (art of record), and newly added limitations in amended independent claim 18 necessitate a new ground of rejection over Boykin, APA, and Ward (art made of record) as set forth below.

Claim Objections

On page 2, paragraph 4 of the Office Action, the Examiner objected to claims 1 and 18 because of minor informalities. Specifically, claims 1 and 18 each recite a particular limitation as "a plug-in module" and "said plug-in module" (e.g., claim 1, lines 9-10). However, other locations merely recite the limitation as "said plug-in." In response, Applicant has amended claims 1 and 18 to consistently recite a "plug-in module." Accordingly, Applicant respectfully requests the Examiner remove the objection with regard to claims 1 and 18.

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Rejection of the Claims under 35 U.S.C. §103(a)

Claims 1-3, 5-11, and 13-17

On page 3, paragraph 7 of the Office Action, the Examiner rejected claims 1-3, 5-11, and 13-17 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Published Patent Application No. 2004/0123279 to Boykin et al. (Boykin) in view of Admitted Prior Art (APA). Since a prima facie case of obviousness has not been properly established, Applicant respectfully traverses the rejection.

The recent U.S. Supreme Court decision of KSR v. Teleflex provides a tripartite test to evaluate obviousness

A rationale to support a conclusion that a claim would have been obvious is that all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art. (See KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007)). Emphasis added.)

Applicant will show that the cited references, either singly or in combination, neither teach nor suggest all limitations of Applicant's claims.

Applicant's amended claim 1 recites, inter alia,

a) invoking a second method from a first method instrumented with bytecode, said first method belonging to said classfile, said classfile having previously registered with said dispatcher, said dispatcher incapable of injecting bytecode into said classfile

. . . [and]

f) invoking said second method from said third method, said invoking including providing an identification of said third method and a second classfile that said third method is a part of, . . . said second classfile having previously registered with said dispatcher, said dispatcher incapable of injecting bytecode into said second classfile. (Emphasis added.)

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Although not rejected under Boykin in light of APA. Applicant's other independent claim, claim 18, shares similar limitations with claim 1 and is discussed, below.

The Examiner relies exclusively on Boykin to teach these claimed elements. However, in contrast to Applicant's claimed elements and contrary to the Examiner's assertions, Boykin is silent on a dispatcher being incapable of injecting bytecode into a classfile.

For example, Boykin discusses that, "Referring to FIG. 4A, computer 400 supports Java virtual machine 402 that includes class loader 404 for loading Java classes. During the class load process, the class loader provides an indication, e.g., class load event notification 408, to injector 410, which then injects hooks into the classes." (Emphasis added.) Indeed, claims 8, 19, and 30 of Boykin each indicate "receiving notification of a class load event at an instrumentation injector component. (Emphasis added.) Thus, the injector of Boykin receives notification of a class load event. Applicant's claim 1 recites, inter alia, "said classfile having previously registered with said dispatcher." Although the injector of Boykin clearly is not the same as Applicant's dispatcher, they both receive an indication after a classfile has been loaded. Therefore, since the injector, and not the "Hooks 414," of Boykin receives the indication after the classfile has been loaded, the Hooks cannot be equated to the dispatcher of Applicant's claims. In contradistinction to Applicant's dispatcher, the injector of Boykin clearly is capable of injecting bytecode.

Moreover, using analysis supplied by the Examiner, the plug-in module of Applicant's claim is equated to a handle.² However, the "plug-in module" (i.e., the handle) of Boykin is identified by the registry.3 Applicant's claim 1 indicates the dispatcher is the component that identifies the plug-in module, "b) said dispatcher performing said second method to identify a plug-in module." Thus, since the registry and not the Hooks identifies the plug-in module, the Hooks cannot be equated to the dispatcher of Applicant's claims for this additional reason.

¹ See Office Action at 4.

² Id. at 5, "identifier 'handle' identifies a specific plug-in module."

³ See, for example, Boykin at paragraph [0059], "IProbeHandle pre(IInvokedMemberContext memberContext) { IProbeHandle handle = factory.newProbeHandle(); handle.setEntries(registry.getProbes(memberContext))." emphasis added.

Since the dispatcher, as described by Applicant's claim 1 cannot be equivalent to the Hooks 414 of *Boykin* as asserted by the Examiner, then it is inconsequential whether the hooks are incapable of injecting bytecode or not. The hooks simply are not relevant to Applicant's independent claim 1. Consequently, *Boykin* is silent on a dispatcher being incapable of injecting bytecode into a classfile.

Asserting that the cited reference teaches the Applicant's claimed elements is merely conclusory with no support found in *Boykin*. "[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*See In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006) cited with approval in *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727, 1740-41 (2007)). Although the Examiner cites to portions of the cited reference, there simply is no rational argument providing a legal nexus between the cited portions and Applicant's independent claim 1.

Since Applicant has shown that not all the claimed elements were known as required by KSR, either by Boykin singly or in combination with APA, Applicant respectfully requests the Examiner withdraw the rejection under 35 U.S.C. §103 with regard to independent claim 1.

Further, since claims 2-3, 5-11, and 13-17 depend, directly or indirectly, from claim 1, they too are allowable for at least the same reasons. Moreover, each of these dependent claims may be patentable for its own limitations.

Claim 4

On page 11, paragraph 8 of the Office Action, the Examiner rejected claim 4 under 35 U.S.C. §103(a) as being unpatentable over Boykin, APA, and further in view of U.S. Patent No. 7,093,234 to Hibbeler et al. (Hibbeler). However, claim 4 depends from claim 1 that Applicant asserts is patentable. Therefore, claim 4 is allowable for at least the same reasons. Moreover, claim 4 may be patentable for its limitations.

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Claims 18-20, 22-28, and 30-34

On page 11, paragraph 9, the Examiner rejected claims 18-20, 22-28, and 30-34 under 35 U.S.C. §103(a) as being unpatentable over *Boykin*, in view of *APA* and U.S. Patent No. 6,314,470 to Ward et al. (*Ward*). However, as noted above, amended independent claim 18 shares similar limitations with claim 1 that Applicant asserts, above, are patentable. The cited reference to *Ward* fails to supply any elements of independent claim 18 that were shown to be missing from *Boykin*.

Since Applicant has shown that not all the claimed elements were known as required by KSR, either by Boykin singly or in combination with APA or Ward, Applicant respectfully requests the Examiner withdraw the rejection under 35 U.S.C. §103 with regard to independent claim 18.

Further, since claims 19-20, 22-28, and 30-34 depend, directly or indirectly, from claim 18, they too are allowable for at least the same reasons. Moreover, each of these dependent claims may be patentable for its own limitations.

Claim 21

On page 12, paragraph 10 the Examiner rejected claim 21 under 35 U.S.C. § 103(a) as being unpatentable over *Boykin*, *APA*, *Ward*, and further in view of *Hibbeler*. As noted above, Applicant asserts that claim 18 is allowable. Therefore, since claim 21 depends from claim 18, claim 21 also is allowable for at least the same reasons. Moreover, claim 21 may be patentable for its limitations.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone the undersigned at (408) 660-2015 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date MAY 28, 2009

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 27th day of May, 2009.

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